**[4910-13-P]**

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2006-25001; Directorate Identifier 2006-NM-079-AD; Amendment 39-16937; AD 2012-02-14]**

**RIN 2120-AA64**

**Airworthiness Directives;** The Boeing Company Airplanes

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for all The Boeing Company Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes. This AD was prompted by a report that the top 3 inches of the aero/fire seals of the blocker doors on the thrust reverser torque boxes are not fireproof. This AD requires a one-time inspection to determine the part numbers of the aero/fire seals of the blocker doors on the thrust reverser torque boxes on the engines, and replacing affected aero/fire seals with new, improved aero/fire seals. We are issuing this AD to prevent a fire in the fan compartment (a fire zone) from migrating through the seal to a flammable fluid in the thrust reverser actuator compartment (a flammable fluid leakage zone), which could result in an uncontrolled fire.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707,

MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; e-mail me.boecom@boeing.com; Internet https://www.myboeingfleet.com. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

**Examining the AD Docket**

You may examine the AD docket on the Internet at http://www.regulations.gov; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is Document Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Chris Parker, Aerospace Engineer, Propulsion Branch, ANM-140S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: 425-917-6496; fax: 425-917-6590; e-mail: chris.r.parker@faa.gov.

**SUPPLEMENTARY INFORMATION:**

**Discussion**

We issued a third supplemental notice of proposed rulemaking to amend 14 CFR part 39 to include an airworthiness directive (AD) that would apply to the specified products. That third supplemental NPRM was published in the Federal Register on October 11, 2011 (76 FR 62649). The original NPRM (71 FR 34025, June 13, 2006) proposed to require replacing the aero/fire seals of the blocker doors on the thrust reverser torque boxes on the engines with new improved aero/fire seals. The first

supplemental NPRM (73 FR 51382, September 3, 2008) proposed to add airplanes to the applicability. The second supplemental NPRM (74 FR 34518, July 16, 2009) proposed to change the compliance time for the replacement of the aero/fire seals. The third supplemental NPRM (76 FR 62649, October 11, 2011) proposed to additionally prohibit the installation of certain non-fireproof thrust reverser seals.

**Comments**

We gave the public the opportunity to participate in developing this AD. We have considered the comments received. The Boeing Company and American Airlines both support the third supplemental NPRM (76 FR 62649, October 11, 2011).

**Conclusion**

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting the AD as proposed except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the third supplemental NPRM (76 FR 62649, October 11, 2011), for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the third supplemental NPRM (76 FR 62649, October 11, 2011).

**Costs of Compliance**

We estimate that this AD affects 803 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

**Estimated costs**

| Action | Labor cost | Parts cost | Cost per product | Cost on U.S. operators |
|---|---|---|---|---|
| Inspection for part number | 1 work-hour X $85 per hour = $85 per inspection cycle | None | $85 per inspection cycle | $68,255 per inspection cycle |

We estimate the following costs to do any necessary replacements that would be required based on the results of the inspection. We have no way of determining the number of aircraft that might need this replacement:

**On-condition costs**

| Action | Labor cost | Parts cost | Cost per product |
|---|---|---|---|
| Replacement | 5 work-hours X $85 per hour = $425 | $4,770 | $5,195 |

According to the manufacturer, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

**Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

**Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the

national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),

(3) Will not affect intrastate aviation in Alaska, and

(4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

**List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

**Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

**PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

**§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**2012-02-14 The Boeing Company:** Amendment 39-16937; Docket No. FAA-2006-25001; Directorate Identifier 2006-NM-079-AD.

(a) **Effective Date**

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) **Affected ADs**

None.

(c) **Applicability**

This AD applies to all The Boeing Company Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes, certificated in any category.

(d) **Subject**

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 78, Engine exhaust.

(e) **Unsafe Condition**

This AD was prompted by a report that the top 3 inches of the aero/fire seals of the blocker doors on the thrust reverser torque boxes are not fireproof. We are issuing this AD to prevent a fire in the fan compartment (a fire zone) from migrating through the seal to a flammable fluid in the thrust reverser actuator compartment (a flammable fluid leakage zone), which could result in an uncontrolled fire.

(f) **Compliance**

Comply with this AD within the compliance times specified, unless already done.

(g) **Inspection to Determine Type of Aero/Fire Seals**

For airplanes having an original airworthiness certificate issued before the effective date of this AD, and for airplanes on which the date of issuance of the original export certificate of airworthiness is before the effective date of this AD: Within 60 months or 8,200 flight cycles, whichever occurs first, after the effective date of this AD, perform a one-time detailed inspection to determine the color of the aero/fire seals of the blocker doors on the thrust reverser torque boxes on the engines. For any aero/fire seal having a completely grey color (which is the color of seals with part number (P/N) 315A2245-1 or 315A2245-2), with no red at the upper end of the seal, do the actions specified in paragraph (i) of this AD. For any aero/fire seal having a red color at the

upper end of the seal (which indicates installation of seals with P/N 315A2245-7 or 315A2245-8), no further action is required by this AD. A review of airplane maintenance records is acceptable in lieu of this inspection if from that review the part number of the correct aero/fire seals (P/N 315A2245-7 or 315A2245-8) can be conclusively determined to be installed.

(h) **Definition**

For the purposes of this AD, a detailed inspection is: "An intensive examination of a specific item, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses, etc., may be necessary. Surface cleaning and elaborate procedures may be required."

(i) **Replacement of the Aero/Fire Seals**

For any aero/fire seal identified during the inspection/records check required by paragraph (g) of this AD to have a non-fireproof seal: Within six months after doing the actions required by paragraph (g) of this AD, replace the aero/fire seals of the blocker doors on the thrust reverser torque boxes on the engines with new, improved aero/fire seals, in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-78-1074, Revision 1, dated September 15, 2005. Replacing the aero/fire seals of the blocker doors on the thrust reverser torque boxes on the engines with new, improved aero/fire seals, in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-78-1074, Revision 1, dated September 15, 2005, is terminating action for the inspection required by paragraph (g) of this AD.

(j) **Parts Installation**

As of the effective date of this AD, no person may install a non-fireproof thrust reverser seal having P/N 315A2245-1 or P/N 315A2245-2 on any airplane.

(k) **Credit for Actions Accomplished in Accordance with Previous Service Information**

Replacements done before the effective date of this AD in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-78-1074, dated April 7, 2005, are acceptable for compliance with the requirements of paragraph (i) of this AD.

(l) **Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD. Information may be e-mailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(m) **Related Information**

For more information about this AD, contact Chris Parker, Aerospace Engineer, Propulsion Branch, ANM-140S, 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: 425-917-6496; fax: 425-917-6590; e-mail: chris.r.parker@faa.gov.

(n) **Material Incorporated by Reference**

(1) You must use the following service information to do the actions required by this AD, unless the AD specifies otherwise. The Director of the Federal Register approved the incorporation by reference (IBR) under 5 U.S.C. 552(a) and 1 CFR part 51.

(i) Boeing Special Attention Service Bulletin 737-78-1074, Revision 1, dated September 15, 2005.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; e-mail me.boecom@boeing.com; Internet https://www.myboeingfleet.com.

(3) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington For information on the availability of this material at the FAA, call 425-227-1221.

(4) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at an NARA facility, call 202-741-6030, or go to http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Issued in Renton, Washington, on January 12, 2012.

Michael J. Kaszycki,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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